SONY®

4-482-589-21 (1)

TRINITRON® COLOR TV

Operating Instructions

Before operating the unit, please read this manual thoroughly and retain it for future reference.

Owner's Record

The model and serial numbers are located at the rear of the unit. Record these numbers in the spaces provided below. Refer to these numbers whenever you call upon your Sony dealer regarding this product.

Model No. KV-27TX20 Serial No. _____

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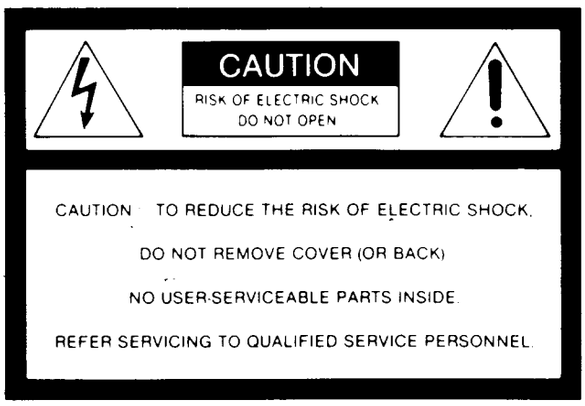
To prevent fire or shock hazard, do not expose the unit to rain or moisture.


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
CAUTION TO REDUCE THE RISK OF ELECTRIC SHOCK,
DO NOT REMOVE COVER (OR BACK)
NO USER-SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

This symbol is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Note to CATV system installer in the U.S.A.
This reminder is provided to call the CATV system installer's attention to Article 820-22 of the NEC that provides guidelines for proper grounding and, in particular, specifies that the cable ground shall be connected to the grounding system of the building, as close to the point of cable entry as practical.

CAUTION:

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

Before use

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General

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Features

Color monitor featuring a Microblack™ Trinitron picture tube for high resolution, high contrast picture.

- **Multi-band VHF/UHF/CATV tuner** receives up to 125 cable channels for a total of 181 possible off-air and cable channels.
- **Built-in MTS (Multichannel TV Sound) decoder** enables reception of stereo programs and Second Audio Program (SAP) broadcasts.
- **Built-in video input jacks** for better quality picture of the connected VCR and/or video disc player, etc.
- **Variable audio output jacks** reproduces TV or video sound through an audio system.
- **MATRIX SURROUND button** enhances stereophonic effect.
- **On-screen displays**

Supplied Remote Commander provides you many other convenient features.

- **Picture-in-picture feature** lets you watch more than one channel at once. TV channel or a video source can be displayed in a box inset into the corner of the primary screen.
- **Sleep timer** automatically turns off the TV after approximately one hour.
- **Automatic programming** to preset all receivable channels instantly.
- **ANT/AUX button** permits one-touch selection of pay cable TV when a converter is connected.
- **Internal clock** for the current time display

And other features for high quality picture...

- **Dynamic color™ system** for superior color reproduction with natural facial color tones and dazzling whites.
- **Dynamic picture™ system** adjusts picture contrast automatically to produce more detail in both bright and dark areas of every scene.
- **Colorpure Filter™** produces fine picture detail without color spill or color noise.

Precautions

Safety

- Operate the unit only on 120 V AC.
- One blade of the plug is wider than the other for the purpose of safety and will fit into the power outlet only one way. If you are unable to insert the plug fully into the outlet, contact your dealer.
- Should any liquid or solid object fall into the cabinet, unplug the unit and have it checked by qualified personnel before operating it any further.
- Unplug the unit from the wall outlet if it is not going to be used for several days or more. To disconnect the cord, pull it out by the plug. Never pull the cord itself.

Installation

- To prevent internal heat build-up, do not block the ventilation openings.
- Do not install the unit in a hot or humid place or in a place subject to excessive dust or mechanical vibration.

Cleaning

Clean the unit with a slightly damp soft cloth. Use a mild household detergent. Never use strong solvents such as thinner or benzine as they might damage the finish of the cabinet.

Repacking

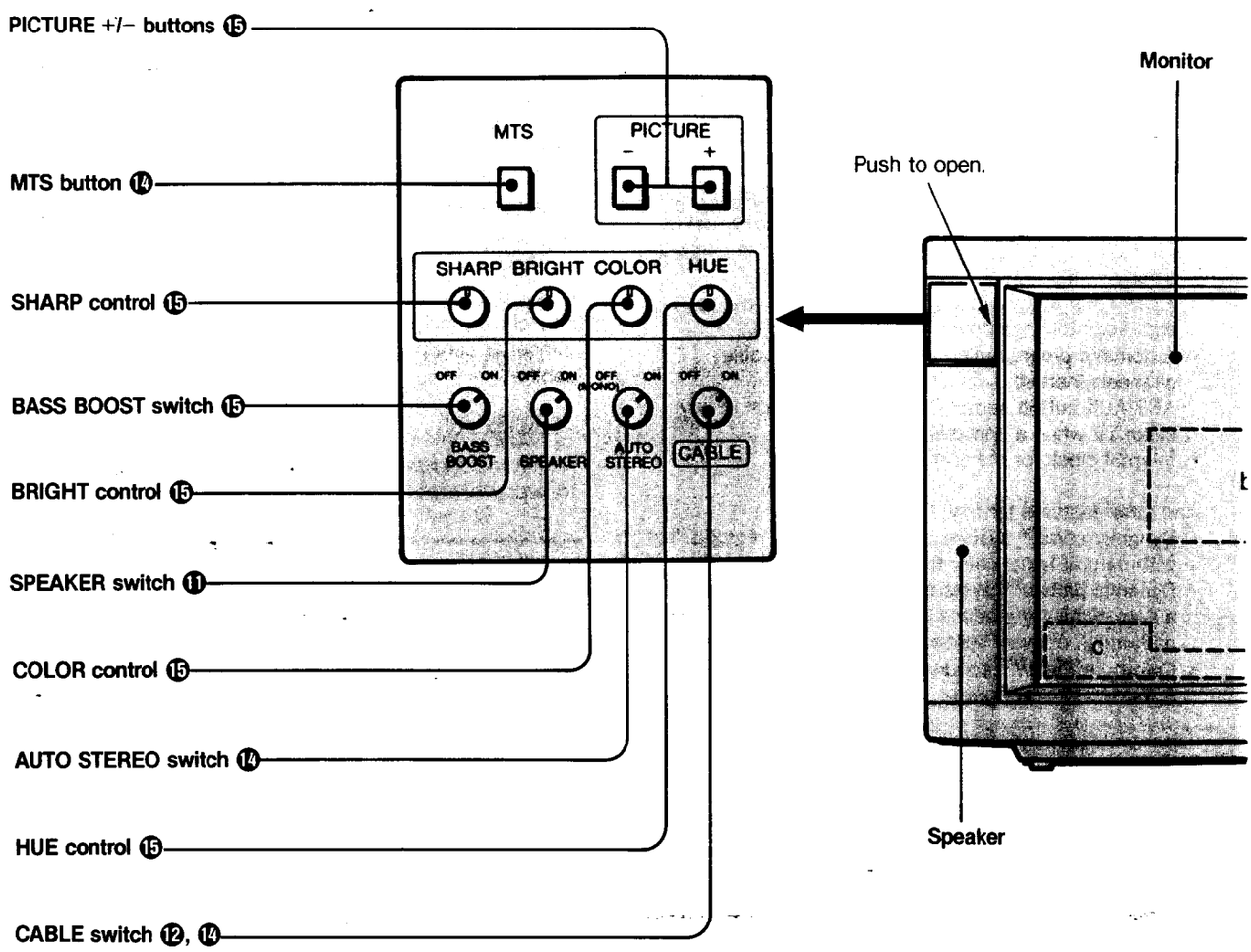
Retain the original carton and packing materials for safe transport of this unit in the future.

Use of this television receiver for other than private viewing of programs broadcast on UHF or VHF or transmitted by cable companies for the use of the general public may require authorization from the broadcaster/cable company and/or program owner.

Location of Controls

Refer to the pages indicated in ● for details.

Front

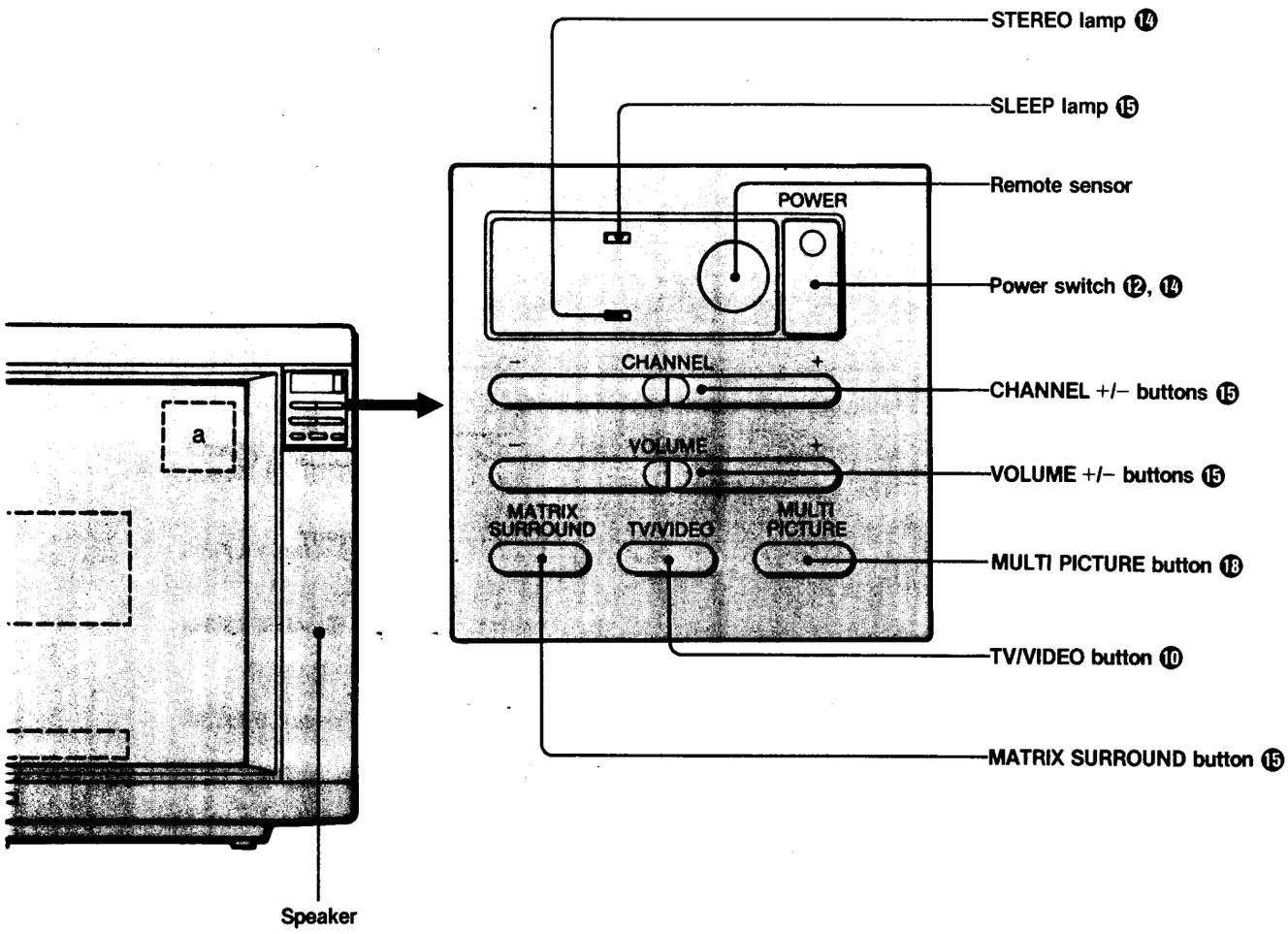


On-screen displays

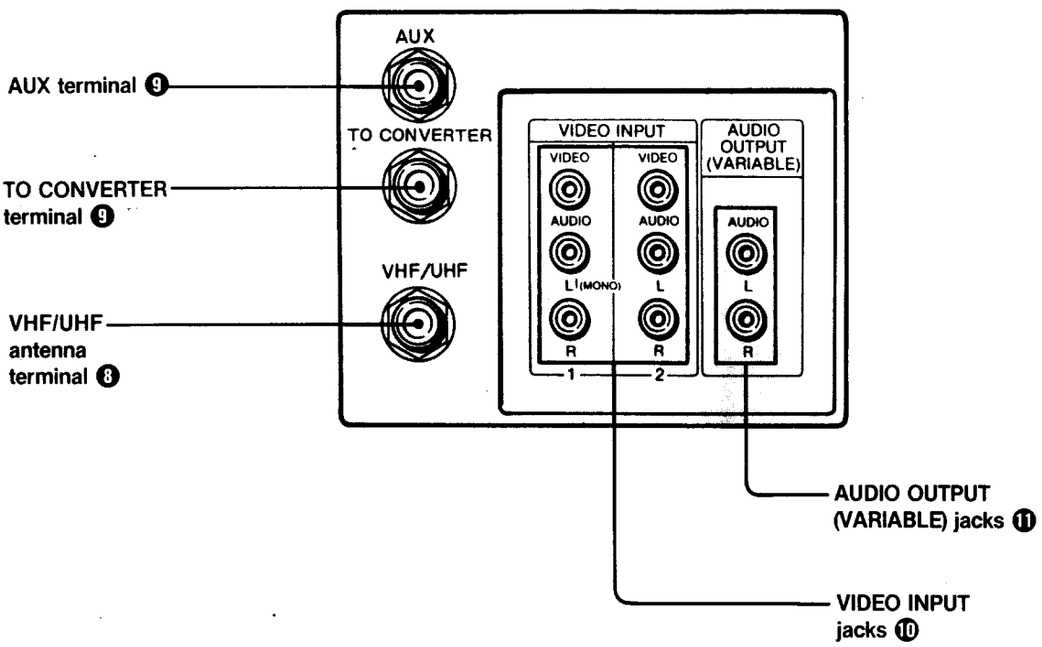
a) • Channel numbers
- MTS mode indication
- "MUTING", "SLEEP" or "VIDEO" mode indication

b) "AUTO PROGRAM" indication

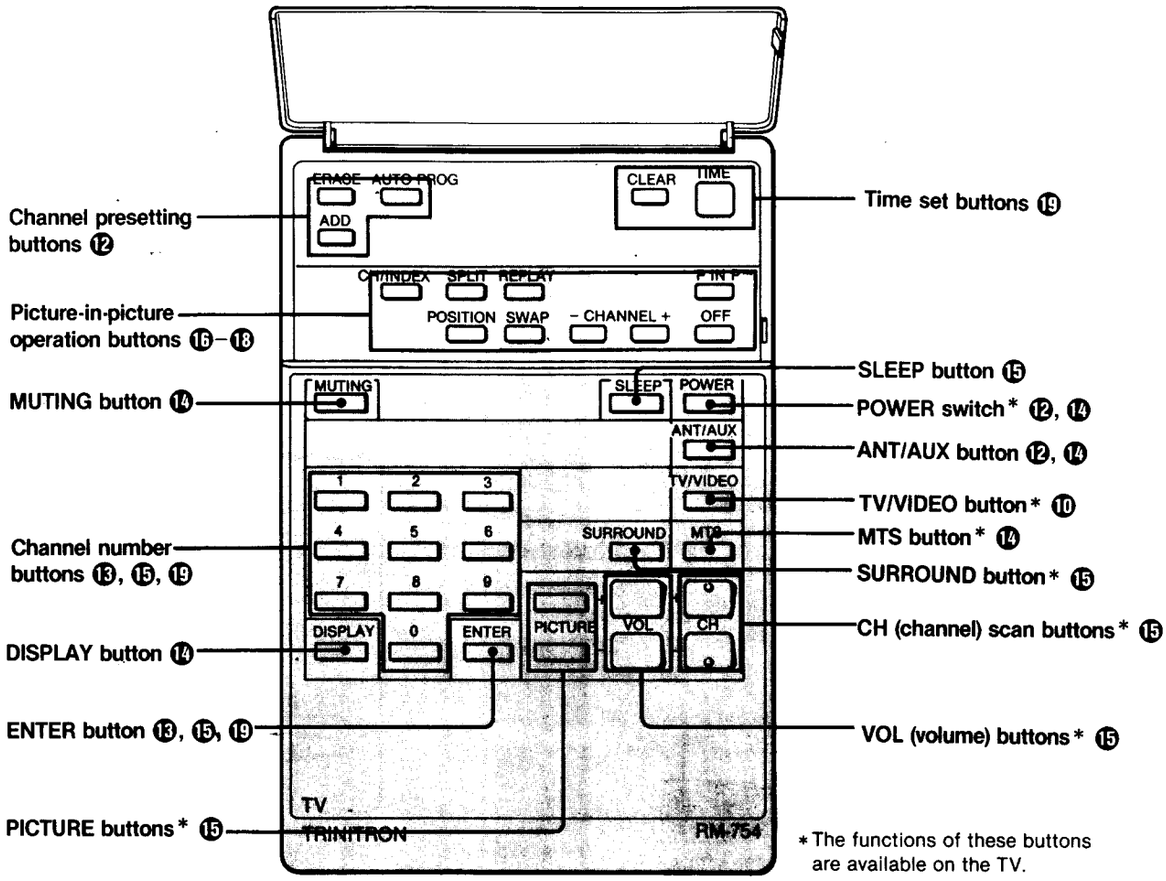
c) • Bar display for volume or picture adjustment
- Current time when the internal clock is set
- Display for surround mode indication


STEREO lamp ⑭
SLEEP lamp ⑮
Remote sensor
POWER
Power switch ⑫, ⑭
CHANNEL
CHANNEL +/– buttons ⑮
VOLUME
VOLUME +/– buttons ⑮
MATRIX SURROUND
TV/VIDEO
MULTI PICTURE
MULTI PICTURE button ⑱
TV/VIDEO button ⑩
MATRIX SURROUND button ⑮
a
Speaker

Rear


AUX terminal ⑨
TO CONVERTER terminal ⑨
VHF/UHF antenna terminal ⑧
AUX
TO CONVERTER
VHF/UHF
VIDEO INPUT
VIDEO
AUDIO
L (MONO)
R
VIDEO
AUDIO
L
R
1
2
AUDIO OUTPUT (VARIABLE)
AUDIO
L
R
AUDIO OUTPUT (VARIABLE) jacks ⑪
VIDEO INPUT jacks ⑩

Remote Commander RM-754



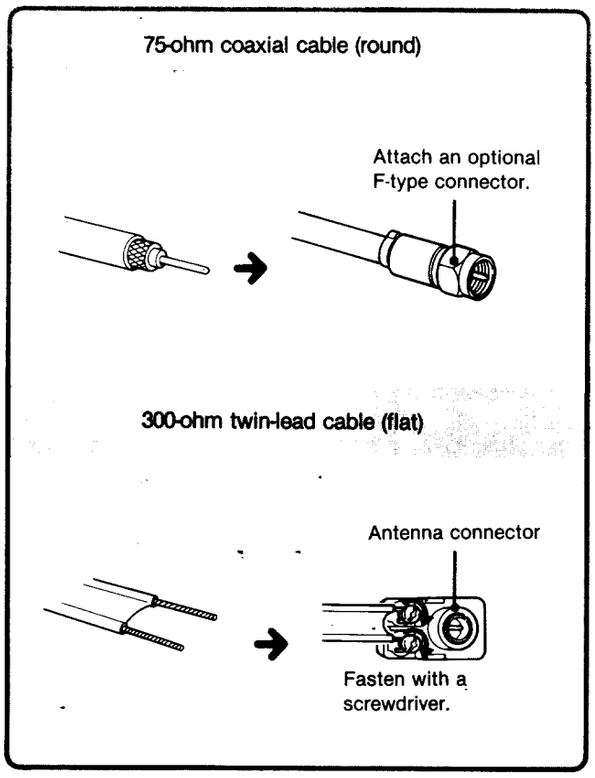
*The functions of these buttons are available on the TV.

Connecting TV Antenna/Cable

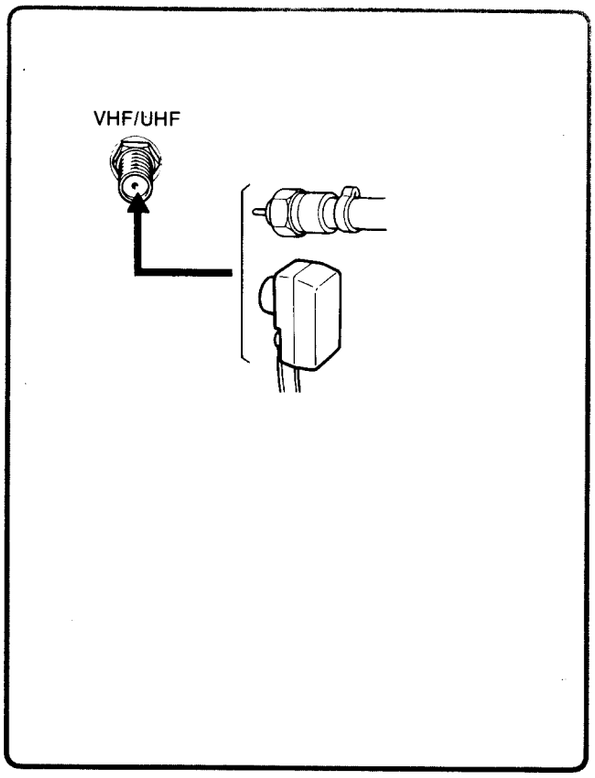
If you cannot obtain satisfactory reception with an indoor antenna, use an outdoor antenna.
Cable TV reception is only possible by connecting a cable supplied by your local cable operator.

To Connect a VHF, UHF, or VHF/UHF Combination Antenna* or CATV Cable

1 Check the cable type and prepare the cable end using the appropriate connector.

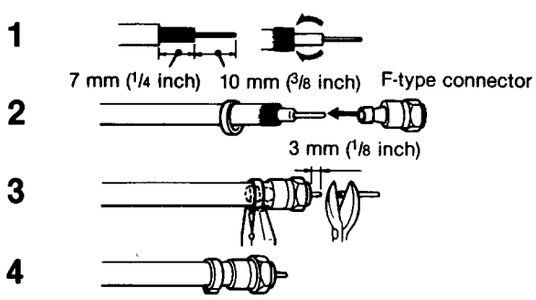


2 Plug the connector into VHF/UHF on the rear of the TV.



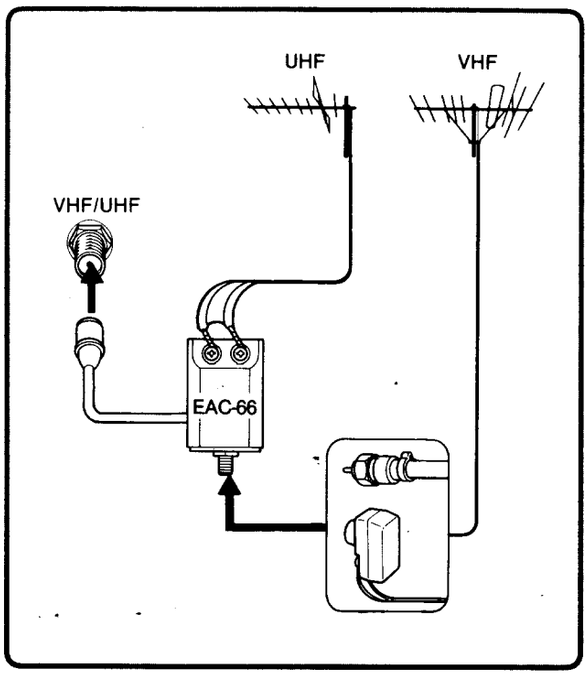
* Most combination antennas are equipped with a signal splitter. Remove the splitter and attach the appropriate connector.

How to attach an F-type connector to the 75-ohm coaxial cable

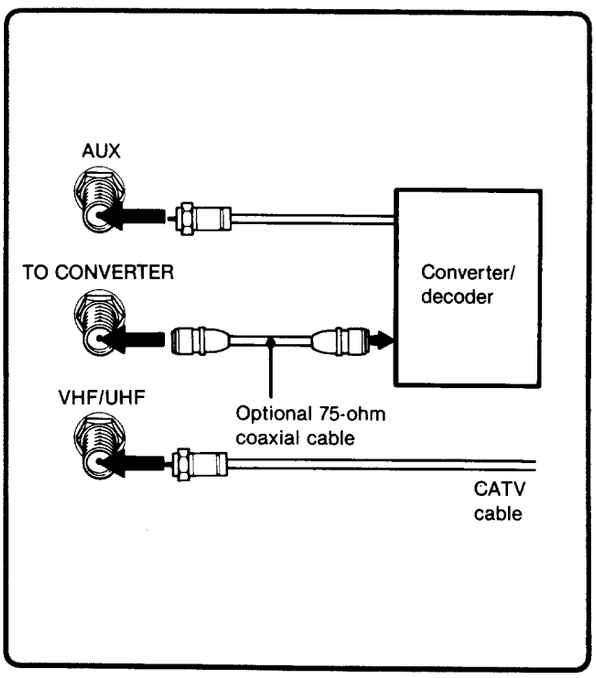


When you connect both VHF and UHF antennas
Use the optional EAC-66 U/V mixer.

1 Prepare the VHF antenna end using the appropriate connector.
2 Connect the cables to the mixer.
3 Plug the mixer to VHF/UHF.



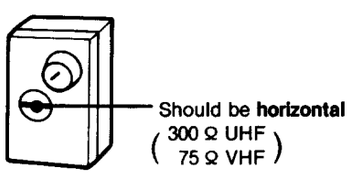
When you connect a cable with a special converter/decoder* for pay cable TV systems
Pay cable TV systems use scrambled or encoded signals and require special converters (decoders) in addition to the normal cable connection.



When the U/V mixer is used
Snow and noise may appear in the pictures of the cable TV channels over 37 (W+1).

*The special converter/decoder will be supplied by the cable system operator.

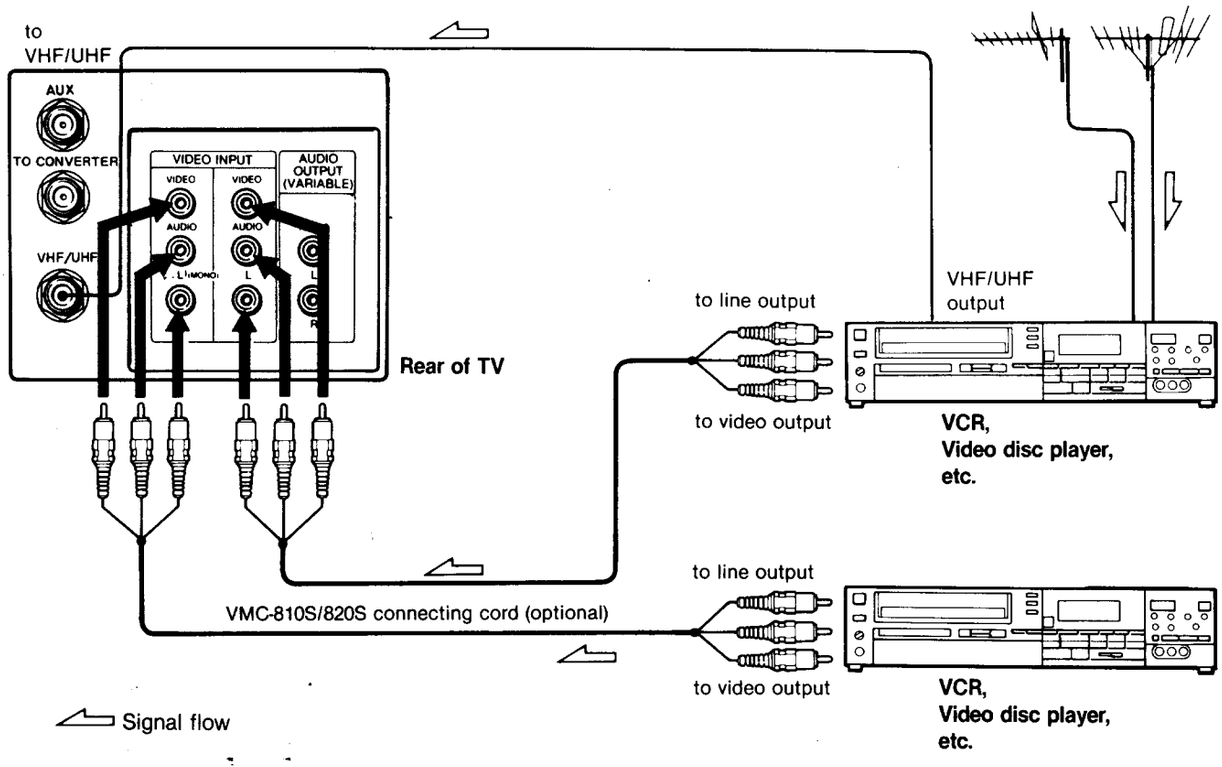
If the supplied antenna connector has a slot as illustrated below:
The antenna connector can be used also as a U/V mixer.
When connecting both 75-ohm VHF and 300-ohm UHF antennas, or 300-ohm UHF antenna only;



To turn the slot, use a coin or a similar object.

Connecting Other Equipment

Connecting a VCR



With this connection, you will be able to...
—View the playback of video tapes
—Record TV programs
—Record a TV program while viewing another

To watch the VCR picture

1 Turn on the TV.
2 Press the TV/VIDEO button on the TV so that the "VIDEO" indication appears on the screen.
3 Set the VCR in playback mode.
If you connect two VCRs, be sure not to set both VCRs in playback mode at the same time, because combined TV programs from both VCRs will appear on the screen.

To return to the TV mode

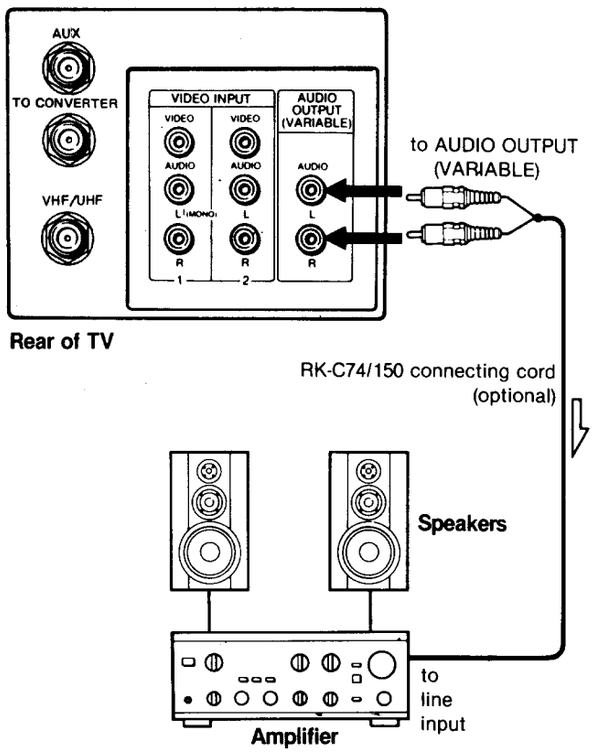
Press the TV/VIDEO button on the TV so that a channel number appears on the screen.

- If you connect a monaural VCR, connect the audio output of the VCR to the L (MONO) jack of VIDEO INPUT 1 of the TV. The monaural sound is heard from both speakers.
- For operation, refer to the instruction manual furnished with the VCR.
- Keep the VCR away from the TV, if the picture or sound is affected.
- When no signal is fed through the VIDEO INPUT jacks even though the TV is in the video mode, "VIDEO" indication will appear on the screen.

Preparing Remote Commander

Connecting an Audio System

—To monitor the TV or connected VCR sound through an audio system

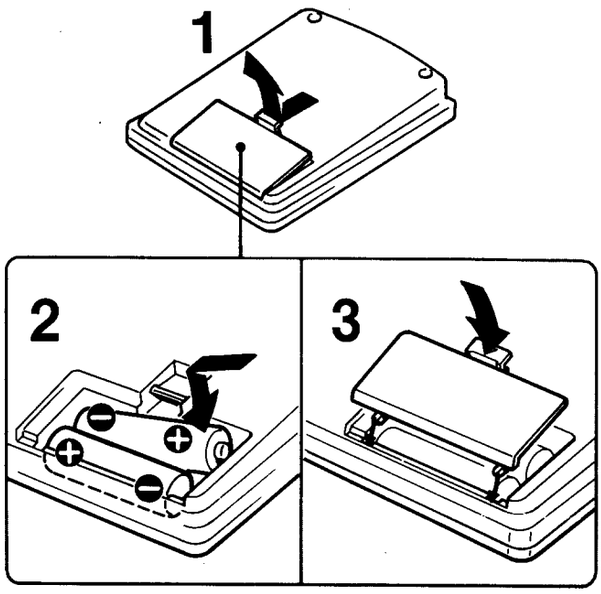


To adjust the sound level

Keep the amplifier volume, bass and treble controls to certain positions (usually at the medium position) and adjust the level with the VOLUME buttons on the TV or the VOL buttons on the Commander.

Battery Installation

1 Push to open the lid.
2 Install two size AA (R6) batteries with the correct polarity.
3 Replace the lid.

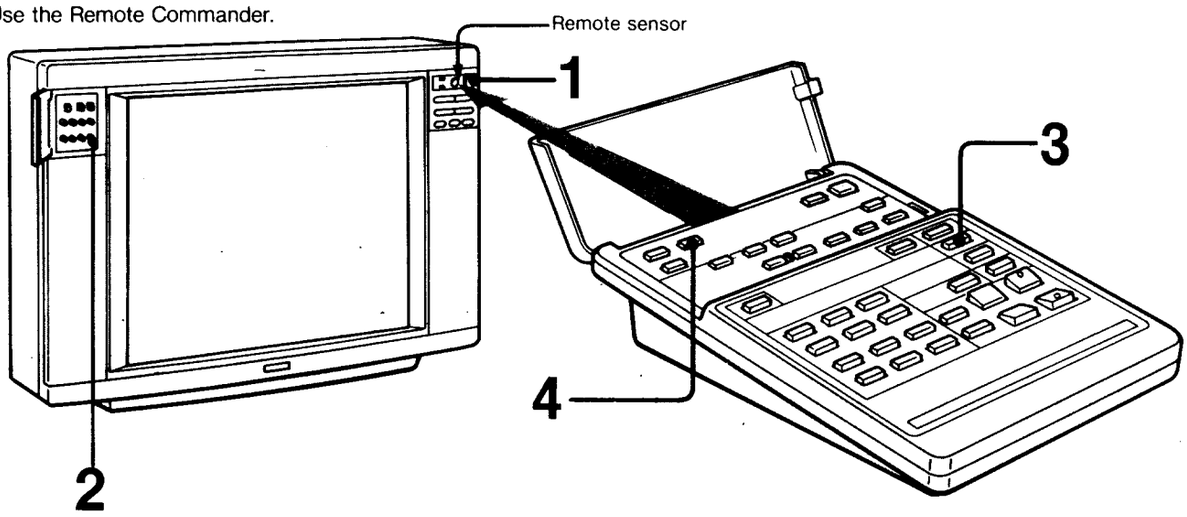


When an audio system is connected to AUDIO OUTPUT, be sure to set the SPEAKER switch on the TV to OFF. The sound from the TV's speakers will be cut off.

- In normal operation, batteries will last up to half a year. If the unit does not operate properly, the batteries might be exhausted. Replace them with new ones.
- To avoid damage from possible battery leakage, remove the batteries when the Commander will not be used for a long time.
- If a Remote Commander that is not recommended is used to operate this TV, or if the supplied Remote Commander is used to operate another TV, the TV may not operate properly.

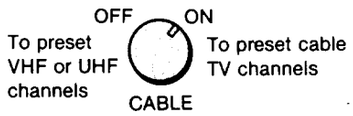
Presetting TV Channels

Use the Remote Commander.

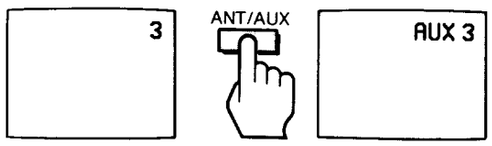


1 Turn the TV on.

2 Set CABLE to the correct position.



3 Press ANT/AUX according to the channel to be preset.



To preset VHF, UHF or regular cable TV channels

To preset pay cable TV channels

4 Press AUTO PROG.

"AUTO PROGRAM" is displayed on the screen and receivable channels (other than the channels already preset) will be preset in numerical sequence. The channels previously preset remain in the unit's memory.
When no more channels can be found, the programming stops and the lowest numbered channel is displayed.

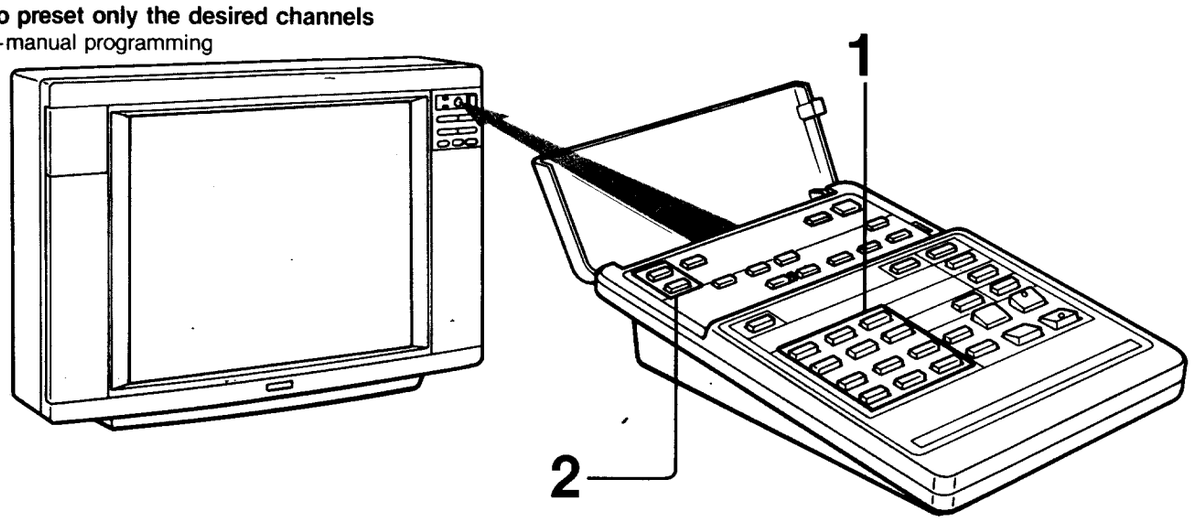
Receivable channels of this TV are:
VHF: 2-13
UHF: 14-69
Cable: 1-125

To check preset channels
Press CH +/−.

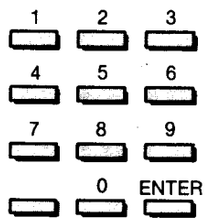
To add the channels that could not be preset with automatic programming because their signal strength was too weak, or **to erase unnecessary channels,** follow the steps in "To preset only the desired channels" on the next page.

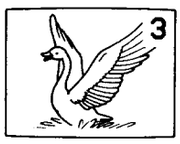
If the "VIDEO" indication is displayed on the screen, press TV/VIDEO so that a channel number appears.

To preset only the desired channels
—manual programming



1 **Press the channel number button(s) and then ENTER to select the channel to be added or erased.**

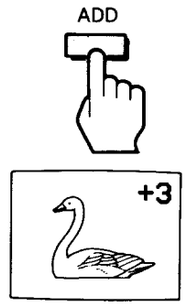




2

To add channels

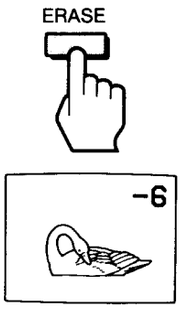
Press ADD.



A "+" appears for a moment. This channel has now been added to the channel scan memory.

To erase channels

Press ERASE.



A "–" appears for a moment. This channel has now been erased from the channel scan memory.

Repeat steps 1 and 2 for other channels to be added or erased.

When a VHF or UHF channel is erased
The cable TV channel with the same number is also erased and vice versa.

Cable TV channel chart*
Cable TV systems use letters or numbers to designate channels. To tune in a channel, refer to the chart below.

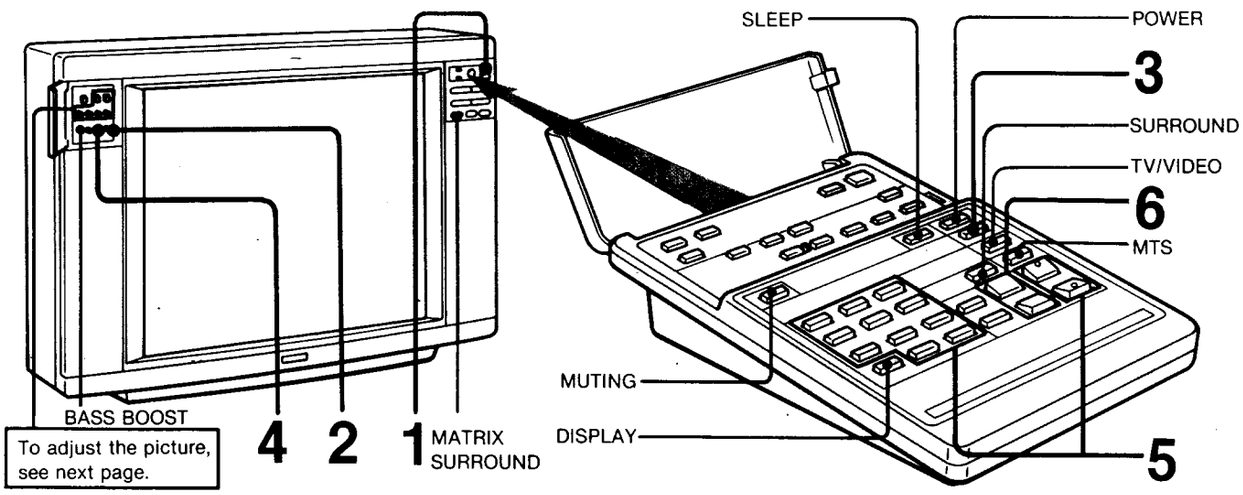
Number on this TV	1	5	6	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Corresponding CATV channel	A–8	A–7	A–6	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q

31	32	33	34	35	36	37	38	39	....	93	94	95	96	97	98	99	100	101	102	....	123	124	125
R	S	T	U	V	W	W+1	W+2	W+3	....	W+57	W+58	A–5	A–4	A–3	A–2	A–1	W+59	W+60	W+61	....	W+82	W+83	W+84

Check with your local cable TV company for more complete information on the available channels.

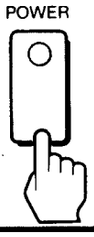
*The designation of the cable TV channels conforms to the EIA/NCTA recommendation.

Watching TV Programs

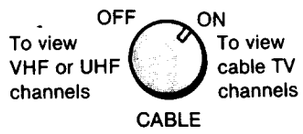


To adjust the picture, see next page.

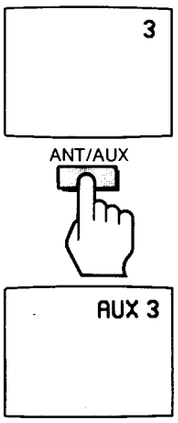
1 Press POWER to turn the TV on.



2 Set CABLE to the appropriate position.



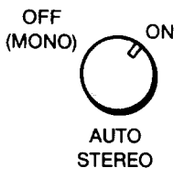
3 Press ANT/AUX according to the channel to be watched.



To view VHF, UHF or regular cable TV channels

To view pay cable TV channels

4 Set AUTO STEREO to ON.



If the "VIDEO" indication is displayed on the screen
Press TV/VIDEO so that a channel number appears.

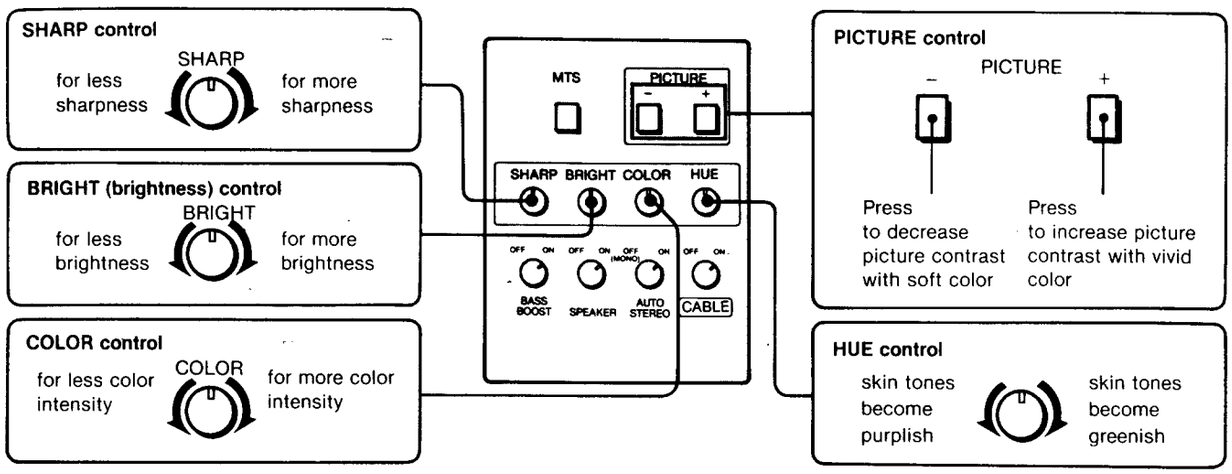
When receiving a Multichannel TV Sound program
Each time MTS is pressed, MAIN, SAP (Second Audio Program), or both are selected in sequence. The corresponding indication will appear on the screen for a while.

If noise makes it hard to receive a very weak TV stereo program
Set AUTO STEREO on the TV to OFF so that the STEREO lamp goes off.
The stereo effect will be cancelled, but reception will be stabilized and the noise will be reduced.

To mute the sound
Press MUTING. The "MUTING" indication will appear on the screen. To restore the sound, press MUTING again or VOL +/–.

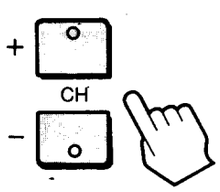
To keep the channel display on the screen
Press DISPLAY.

To adjust the picture

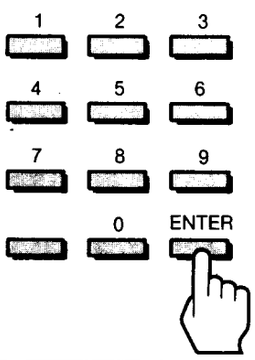


5 Select a channel in one of the following two ways:

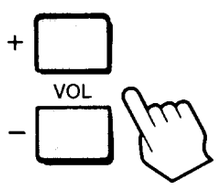
To scan the preset channels in numerical sequence, press CH +/–.



To select a channel directly, press the channel number button(s) and then ENTER. For example, to select channel 10, press 1, 0 and ENTER.



6 Press VOL + or – to adjust the volume.



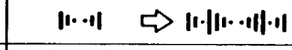
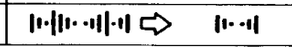
To have the TV turn off automatically after about 1 hour
Press SLEEP. The "SLEEP" indication will appear on the screen for a few seconds and the SLEEP lamp on the TV will remain lit until the TV is turned off.

To cancel the SLEEP timer, press SLEEP again so that the SLEEP lamp goes out, or turn off the TV.

To increase the bass sound
Set the BASS BOOST switch to ON.

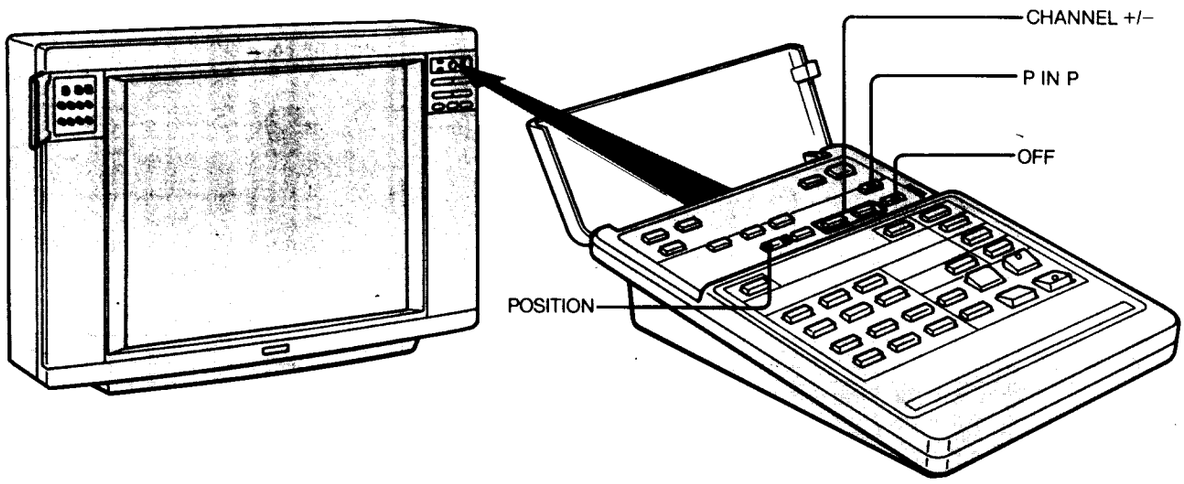
To turn off the unit
Press POWER again.

To enjoy MATRIX surround effect
To enjoy sound reproduction with the atmosphere of a movie theater or a concert hall, press the MATRIX SURROUND button or the SURROUND button. The sound comes out also from the rear speakers.
Press the button again to deactivate MATRIX surround effect.

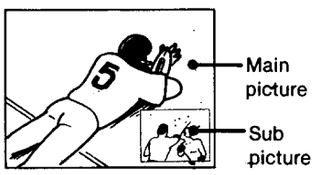
Surround	On-screen indication
Turned ON	
Turned OFF	

This MATRIX surround effect works only at stereo broadcasting.

Enjoying the Picture-in-Picture Feature



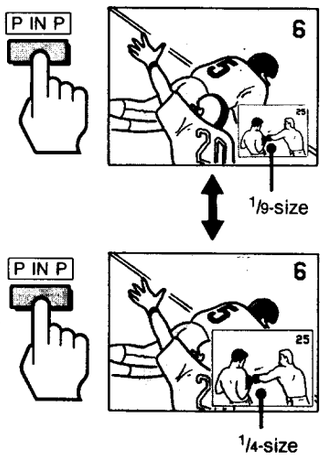
Besides the main picture, another TV channel or a video source can be displayed simultaneously as a sub picture.



To scan the channels of a sub picture, press CHANNEL +/–.
To make the sub picture disappear, press OFF.

To display a sub picture

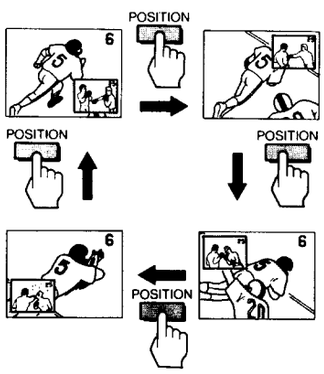
Press P IN P.



Each time P IN P is pressed, a 1/9-size or 1/4-size sub picture will appear, alternately.

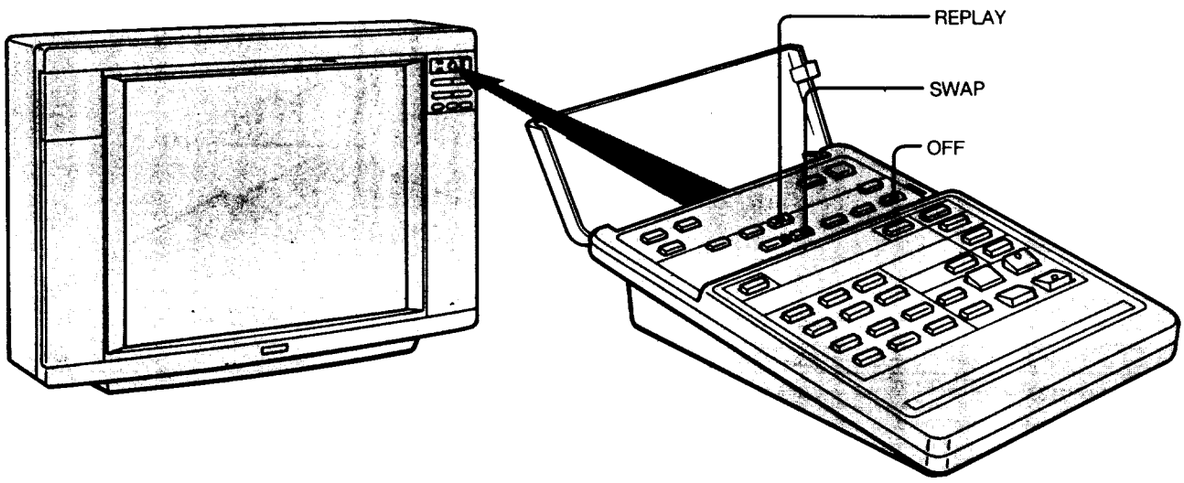
To change the position of the sub picture

1 Display a sub picture.
2 Press POSITION.



- The channels being received through the AUX terminal cannot be displayed as a sub picture except as a split picture. (See page 18.)
- The sound of the sub picture cannot be heard.

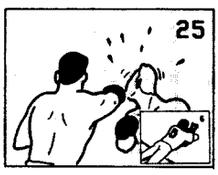
To adjust a sub picture
Adjust the controls inside the panel of the TV. The PICTURE buttons and BRIGHT, COLOR and HUE controls operate on a main and a sub picture simultaneously. The SHARP control is not operable for a sub picture.



To swap the main and the sub picture

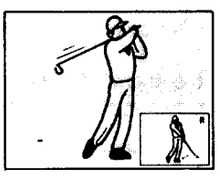
1 Display a sub picture.

2 Press SWAP.



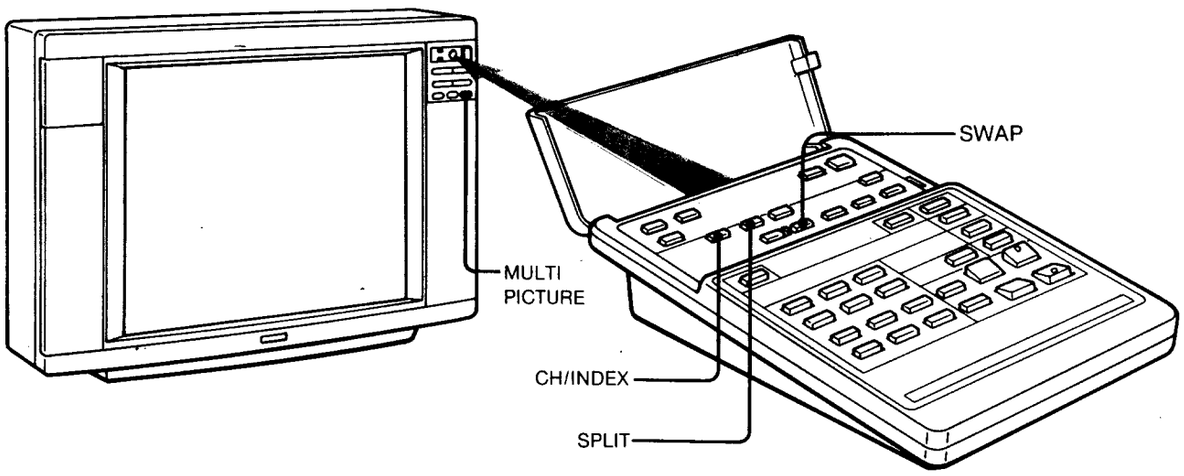
To replay the main picture displayed 2 seconds earlier

Press REPLAY.



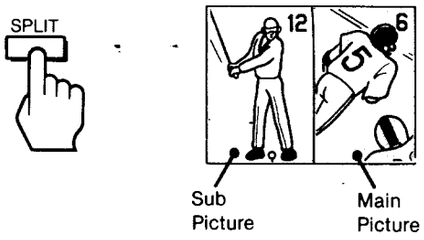
To make the replay picture disappear, press OFF.

Enjoying the Picture-in-Picture Feature



To split the screen with the main and the sub picture

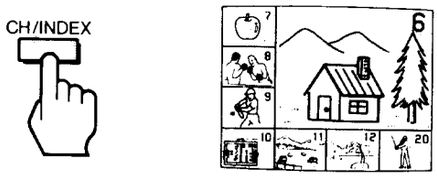
Press SPLIT.



Only the sound of the main picture (right screen) is heard.

To display 7 different sub pictures simultaneously

Press CH/INDEX.



Seven preset channels appear in numerical sequence as sub pictures.
Each time CH/INDEX is pressed, another 7 preset channels will appear.

'o swap the main and the sub picture in the split screen, press ;WAP.

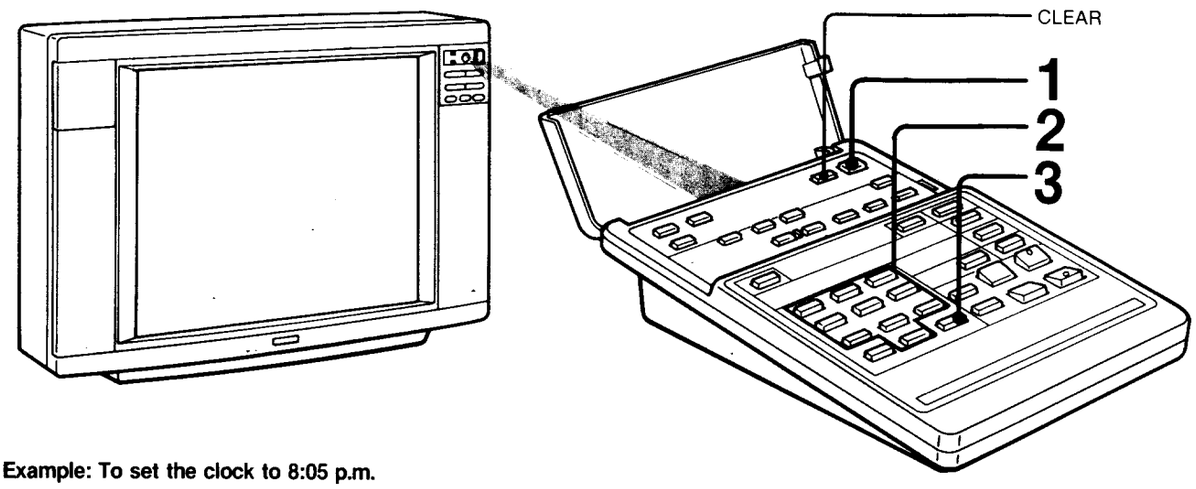
When using the split-screen feature, vertical lines may appear to you to be elongated.

n the split screen, picture may slightly move vertically.

When using the channel-index feature, part of the main picture is hidden by the sub pictures.

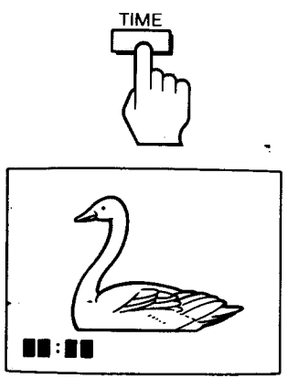
To display different picture-in-picture features in order
Press MULTI PICTURE on the TV. Each time this button is pressed, different picture-in-picture features will appear in order.

Setting the Clock

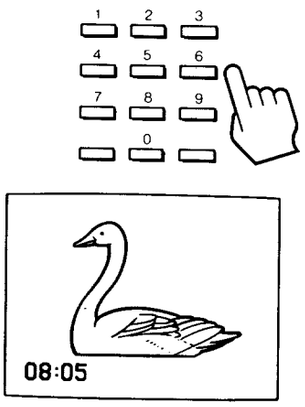


Example: To set the clock to 8:05 p.m.

1 **Press TIME.**

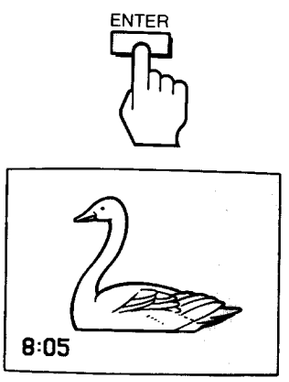


2 **Press 0, 8, 0, 5 (0 necessary).**



If you have made a mistake, press CLEAR within 3 seconds and repeat this step.

3 **Press ENTER.**



The numbers will blink to indicate that the clock has been set. (The 0 in-front will disappear.)

- The internal clock of this TV is 12-hour cycle. If the 24-hour cycle number is displayed, it will be cleared when ENTER is pressed.
- Clock setting will be erased from the unit's memory if the unit is unplugged, or if a power failure occurs.

To make the clock indication disappear, press TIME.
To reset the clock, make the clock indication disappear and then make it appear again. Press CLEAR within 3 seconds and follow the steps above from 2.

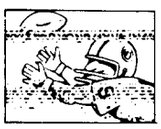
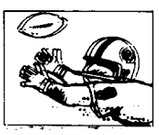
Specifications

Television system	American TV standards
Channel coverage	VHF: 2–13 UHF: 14–69 Cable TV: 1–125
Picture tube	Microblack Trinitron tube **27-inch picture measured diagonally** 28-inch picture tube measured diagonally
Input	VIDEO INPUT 1 and 2 (phono jacks) Video: 1 Vp-p, 75-ohms unbalanced, sync negative Audio: 500 mVrms (100% modulation) Impedance: 47 kilohms
Output	AUDIO OUTPUT (VARIABLE) (phono jacks) More than 408 mVrms at the maximum volume setting (variable) (100% modulation) Impedance: 10 kilohms
Power requirements	120 V AC, 60 Hz
Power consumption	175W (max.) 5W (in standby condition)
Accessories supplied	Remote Commander RM-754 with 2 size AA (R6) batteries Antenna connector
Optional accessories	U/V mixer EAC-66 Connecting cord VMC-810/820S RK-C74/150

Design and specifications subject to change without notice.

Troubleshooting

Disturbances in picture and sound can often be eliminated by checking the symptoms and following the suggestions listed below.

SYMPTOM	CHECK AND ADJUST
Poor or no picture (screen not lit), good sound	
Good picture, no sound	
No picture (screen not lit), no sound	
No color	• Is it a color program? • Adjust COLOR.
Snow and noise only	• Is it an active or the correct channel? • Check the CABLE switch setting. • Check the ANT/AUX button setting. • Check antenna/cable connections.
 **Dotted lines or stripes**	This is often caused by local interference. (e.g. cars, neon signs, hairdryers etc.) Adjust antenna for minimum interference.
 **Double images or ghosts**	Reflections from nearby mountains or buildings often cause this problem. A highly directional outdoor antenna or a CATV cable may improve the picture.
Try another channel. It could be station trouble.	

If the problem persists, contact your nearest service facility.

Sony Corporation Printed in Japan